

CLAIMS

1. A hollow cylindrical bearing member having an interior cylindrical surface with a plurality of blind grooves in the central body portion of said surface, each groove having blocked end portions spaced from the opposite ends of said surface in the longitudinal direction of the cylindrical surface, in parallel with the axial direction of the cylindrical surface, said blind grooves characterized by being forged by a groove punch in a forging step.

2. A cylindrical bearing member according to claim 1, characterized in that one end of said cylindrical bearing member beyond the blocked ends of the grooves is characterized by having been first flared outwardly and then decreased in diameter into a round cylindrical end portion, said blind grooves being characterized by having been formed with said groove punch pushed into the central body portion from the one open end while in said tapered or flared condition.

3. A small-bored hollow cylindrical bearing member having a circumferential wall of a given thickness forming an interior cylindrical surface with a plurality of blind grooves in the central body portion of said surface, each groove having blocked end portions spaced from the opposite ends of said surface in the longitudinal direction of the cylindrical surface, said longitudinal spacing being greater than said given thickness, said blind grooves being in parallel with the axial direction of the cylindrical surface, and characterized by having been forged by a groove punch in a forging step.

4. A cylindrical bearing member according to claim 3, wherein said circumferential wall forms a bore less than 50 mm. in diameter.

5. A cylindrical bearing member according to claim 4 wherein said bore is in the range of 5 to 30 mm.

6. A cylindrical bearing member according to claim 5 wherein said bore is about 6 mm.

7. A method of manufacturing a cylindrical bearing member of a given length comprising the steps of:

extruding a cylindrical column-shaped metallic member having said given length to form a primary intermediate article having a hollow cylindrical body portion and a transverse bottom wall,

press-fitting said primary intermediate article into a die having one end flared by a flared punch to form a secondary intermediate article having a flared end portion open at one end of the cylindrical member in a flared manner,

pushing down a grooved punch from said one open end into the inner central body portion of said secondary intermediate article to form a tertiary intermediate article having a plurality of blind grooves formed in the inner circumferential surface of central body portion of the article,

press-fitting said tertiary intermediate article into a die whose inner circumferential surface is circular to form a fourth intermediate forged article processed in a round shape with said flared portion narrowed, and

punching out the bottom wall of said fourth intermediate forged article to form a plurality of blind grooves each having blocked ends spaced from the top and bottom ends of the article in the longitudinal direction, parallel to the axial direction of the cylindrical body portion.

8. A method according to claim 7 wherein said extruding step forms a hollow cylindrical wall of a given thickness forming a bore of less than 50 mm, and said flared end portion has an axial length greater than said given thickness, whereby said blind grooves terminate spaced from the top end of the article when the article is processed into a round shape.